75TH MORSS
US Naval Academy
Annapolis, Maryland
June 12-13-14 2007
Through Multiple Disciplines, Analytical Power

712CD

75TH MORSS CD Cover Page

If you would like your presentation included in the 75th MORSS Final Report CD it must :

1. ***Be unclassified, approved for public release, distribution unlimited, and is exempt from U.S. export licensing and other export approvals including the International Traffic in Arms Regulations (22CFR120 et seq.);***
2. **Include MORS Form 712CD as the first page of the presentation;**
3. **Have an approved MORS form 712 A/B and**
4. **Be turned into the MORS office no later than:** DEADLINE: 14 June 2007 (Late submissions will not be included.)

Author Request **(To be completed by applicant) - The following author's) request authority to disclose the following presentation in the MORSS Final Report, for inclusion on the MORSS CD and/or posting on the MORS web site.**

Name of Principal Author and all other author's): **Timothy E. Edem and Cynthia D. Uyhelyi**

Principal Author's Organization and address: **AFMC OAS/XRIC**
Bldg 20; Rm 200
2450 D. Street
WPAFB, OH 45433-7629

Phone: **937-656-7602**
Fax: **937-656-7609**
Email: **Timothy.Edem@wpafb.af.mil**

Please use the same title listed on the 75TH MORSS Disclosure Form 712 A/B. If the title of the presentation has changed please list both.)

Original title on 712 A/B: **Acquisition Intelligence Cost Estimating**

If the title was revised please list the original title above and the revised title here:

PRESENTED IN:

WORKING GROUP:	**WG-26 and WG-27**	DEMONSTRATION:	
COMPOSITE GROUP:		POSTER:	
SPECIAL SESSION 1:		TUTORIAL:	
SPECIAL SESSION 2:		OTHER:	
SPECIAL SESSION 3:			

This presentation is believed to be: *Unclassified, approved for public release, distribution unlimited, and is exempt from U.S. export licensing and other export approvals including the International Traffic in Arms Regulations (22CFR120 et seq.)*

Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
01 JUN 2007	**N/A**	**-**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Acquisition Intelligence Cost Estimating	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **AFMC OAS/XRIC Bldg 20, Rm 200 2450 D. Street WPAFB, OH 45433-7629**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release, distribution unlimited

13. SUPPLEMENTARY NOTES
See also ADM202526. Military Operations Research Society Symposium (75th) Held in Annapolis, Maryland on June 12-14, 2007, The original document contains color images.

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**UU**	**42**	

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std Z39-18

Air Force Materiel Command

War-Winning Capabilities … On Time, On Cost

Acquisition Intelligence Cost Estimating

Tim Edem, CDFM
Cynthia Uyhelyi, CDFM
AFMC OAS/XRIC
AFMC Intelligence Division, Cost Branch

Integrity ~ Service ~ Excellence

Overview

- Air Force Materiel Command (AFMC) Intelligence Background
- AFMC OAS Background, Mission, Organizational Structure, Roles & Responsibilities
- Intelligence Costing Working Group (ICWG) Goals, Stakeholders, Membership, Assumptions
- ICWG Status – Acquisition Intelligence LifeCycle Estimating Structure (AILCES)
- Acquisition Intelligence Support Cost Estimate Impacts
- Intel Enterprise Requirements Matrix (IERM) Intelligence Costing Tool
- ICWG Flight Path

AFMC Intelligence Background

- **1999: HAF/A2 & AFMC/CC:**
  - **Recognized systemic deficiency identified in the way AF intelligence functions, products, and services are integrated into the acquisition lifecycle and their respective acquisition intelligence costs**
  - **Directed AFMC/A2 to produce new strategy for intelligence support to force modernization**
- **2003: HQ AFMC/A2 Funded Study**
  - **88% AFMC intelligence-sensitive programs showed active unmet Intelligence requirements**
  - **30% AFMC customers did not utilize the AFMC Intel Support Architecture**

AFMC Office of Aerospace Studies (OAS) Intelligence Division

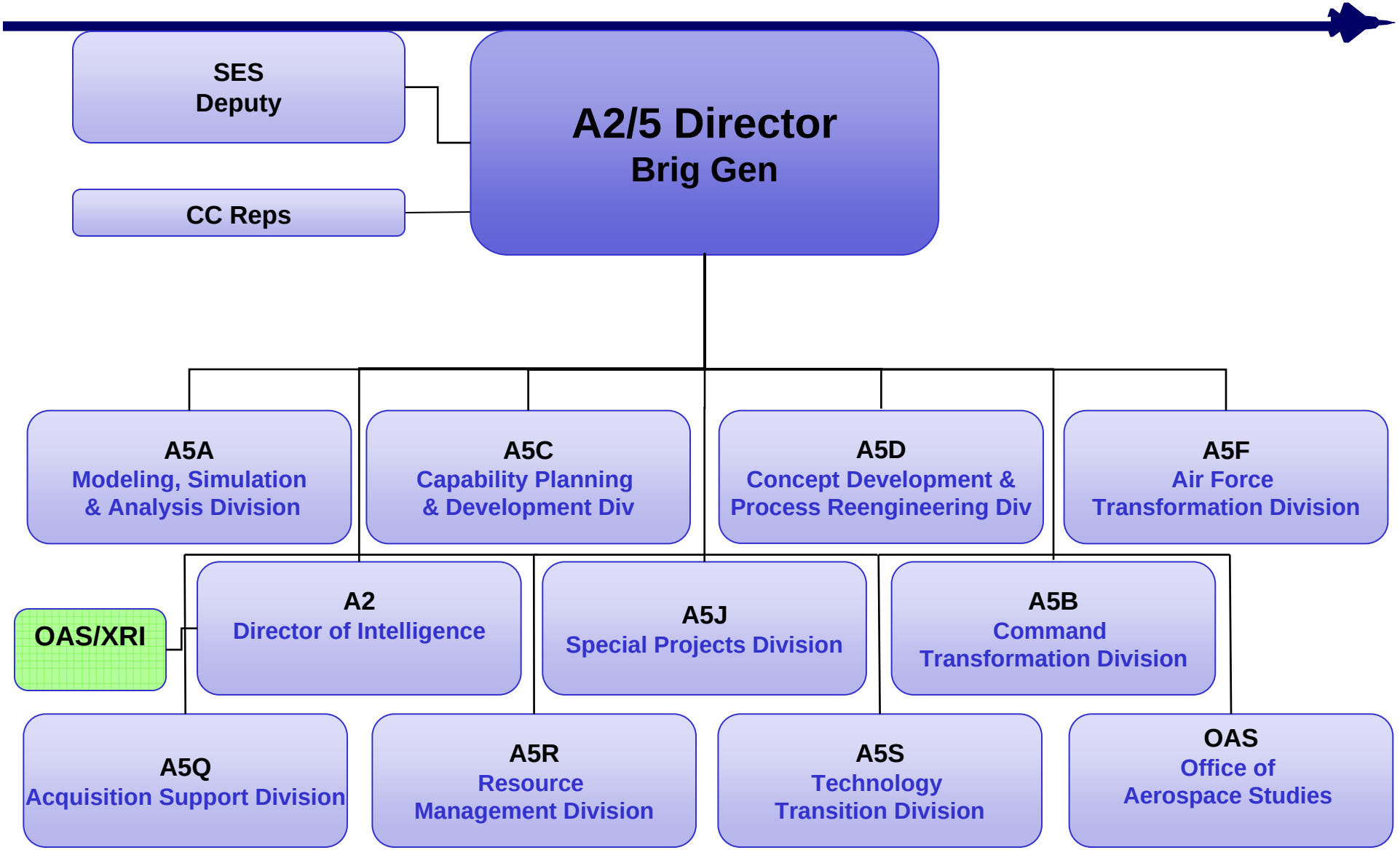
- **Established Jan 04**
- **AFMC lead organization for integrated, enterprise-focused intelligence support to acquisition research, acquisition development, and force sustainment**
  - **MAJCOM-level entity**
  - **Monitor intelligence deficiencies/requirements of intelligence-sensitive programs**
  - **Perform Intelligence Cross-Program Analysis**
- **OAS Intelligence Costing Branch - Established Jul 04 to:**
  - **Create a rigorous methodology for estimating intelligence requirements within the Acquisition Life Cycle**
  - **Support Capabilities Development Studies (FSAs/AoAs)**
  - **Institutionalize intelligence cost process through applicable AF and DoD-wide acquisition, intelligence, and cost policy and guidance**

OAS Intelligence Division Mission

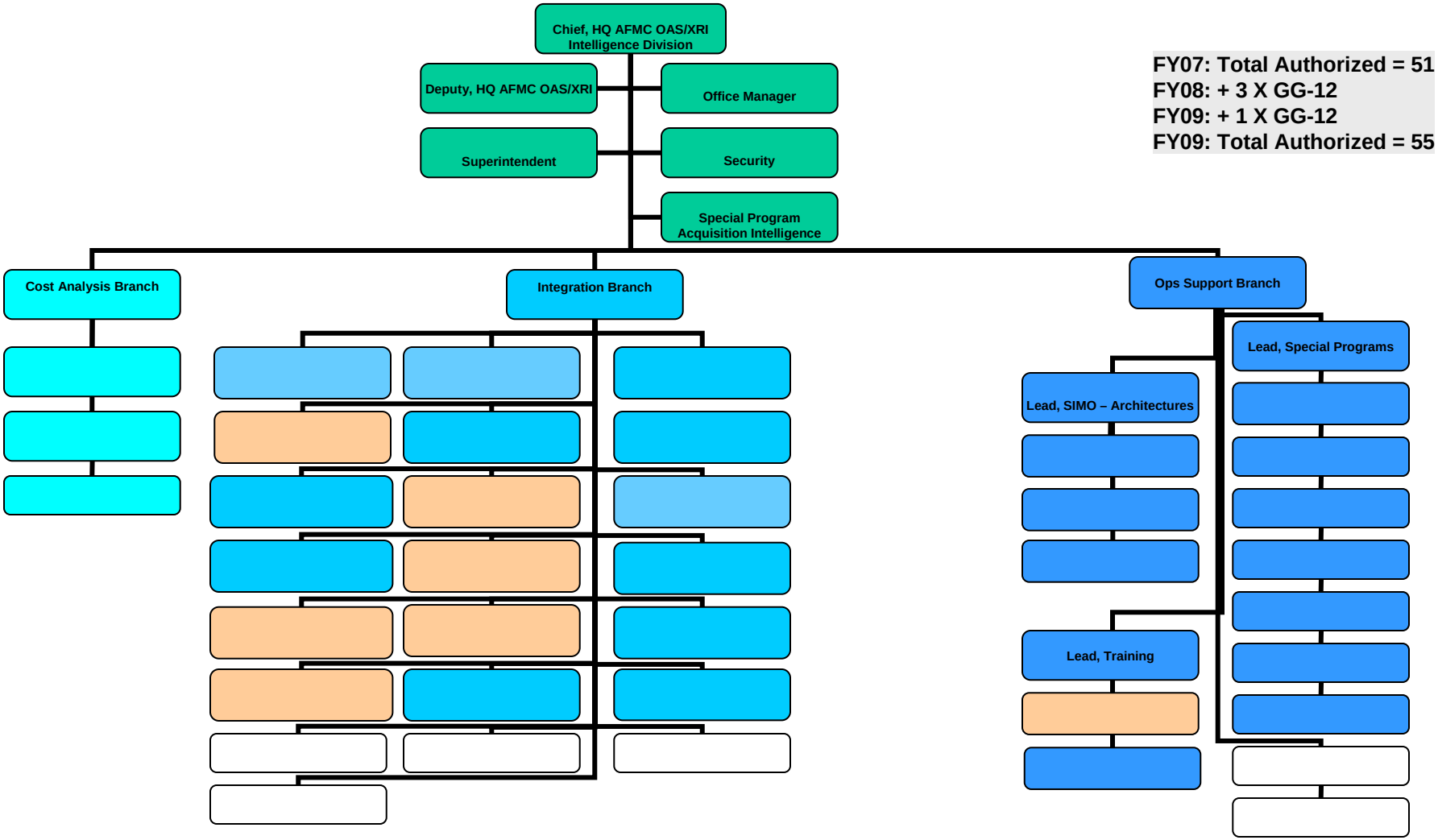
Leads command intelligence integration efforts to identify common solutions, requirements and costs through all phases of the acquisition process

Provides operational intelligence support to AFMC assets command-wide to enable acquisition intelligence activities

Where Do We Fit?

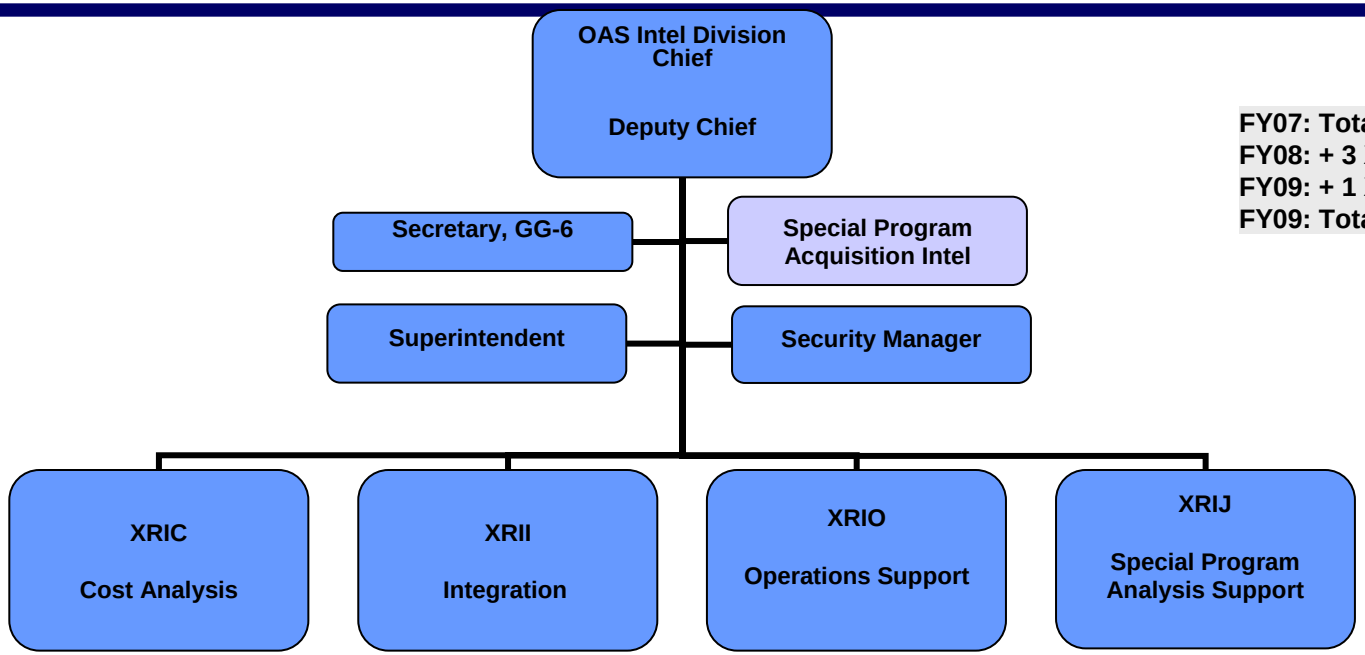


OAS/XRI



FY07: Total Authorized = 51
FY08: + 3 X GG-12
FY09: + 1 X GG-12
FY09: Total Authorized = 55

OAS Intel Division Roles & Responsibilities



FY07: Total Authorized = 51
FY08: + 3 X GG-12
FY09: + 1 X GG-12
FY09: Total Authorized = 55

DEPLOYED

Centralized integration across AFMC enterprises providing an Acquisition Intelligence "Center of Excellence"

- Leads command intelligence integration efforts to identify common solutions and requirements through all phases of the acquisition process
- Coordinates and tracks intelligence deficiencies
- USAF intelligence cost analysis support
- Provides command intelligence systems integration management

Intel support to FSAs and AoAs

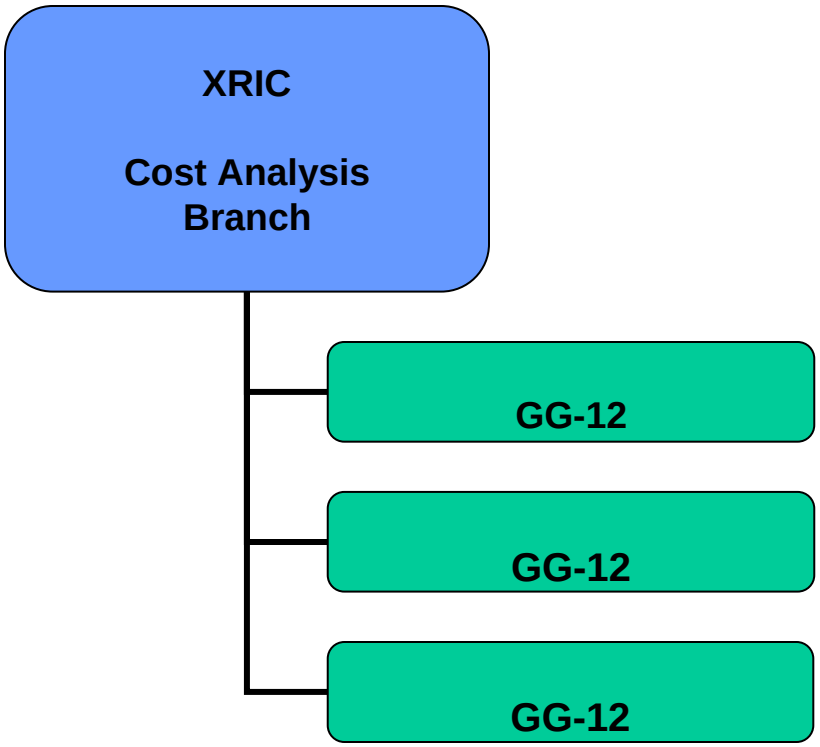
- Theory: early identification of intel requirements
  - New intel requirements levied by new systems will cost the USG
    - Facilitate selection of alternatives which can leverage common requirements
    - As systems get “smarter,” more reliant on large, early infusion of intel data with regular updates
  - Does intel have an impact on cost, schedule, or risk?
    - Intel costs: Upfront and/or throughout life cycle can be significant
    - Will new intel products be ready for system testing/IOC?
    - Tech Readiness Level does not include enabling data requirements—intel must assess its maturity separately
- NGLRS support
  - First effort to identify Alternatives’ intel impacts and costs
    - Estimated cost +$250M for several alternatives—provides “so what”
    - Identified impact to DOT_LPF in one alternative (personnel)
  - Intel needs a seat at the SAP/SAR table for a complete picture

Allows decisionmakers to make more informed choice between alternatives

OAS/XRI Studies Support

- **Presidential Airlift Reconstitution AoA**
  - **Organizing/Compiling support to Threats and Scenarios (T&S) WGs, providing intel support…otherwise no intel would have been included**
- **Force Protection FSA**
  - **Ongoing support to T&S WG and Ops Concepts WG (OCWG/CAWG)**
- **Mobile Nuclear Air Sampling AoA**
  - **T&S WG defacto lead and development input, OCWG support, Cost Analysis WG (CAWG) lead…brought experience to short fuse ISR effort**
- **3D Radar AoA**
  - **T&S WG support, OCWG member, CAWG support**
- **Integrated Air and Missile Defense EoA**
  - **Monitoring and reviewing scope and status**
- **Next Generation Long Range Strike AoA**
  - **Charter member of T&S WG, OCWG, CAWG, produced specific report language and first-ever AFCA-vetted intel cost estimate (+$250M) and DOTMLPF assessment**
- **Combat Search and Rescue AoA (CRT-X)**
  - **Provided threat support, otherwise intel would not have been included**
- **Advanced Joint Air Combat System (AJACS) (Was AMC-X AoA)**
  - **Participated in pre-AoA planning…intel will be a principal member of study**

OAS Intelligence Cost Branch Roles & Responsibilities



FY07: Upgrading two positions to GG13

FY08: +1 (GG:12)

FY09: +1 (GG:12)

- **AF-Wide Intelligence Costing Working Group (ICWG)**
- **Develop Process and Methodology for Costing Intelligence Requirements Associated with current and new Air Force Acquisitions**
- **Supply Intelligence Costing Data to New Program Standups and Programming**
- **Assist User Commands with Intelligence Support Costing Data**

Intelligence Costing Working Group (ICWG)

- **Established Jan 05**
- **HAF/A2 Chartered Group**
- **Members: (AFMC A2/5 & FM Memo) AF & MAJCOM Intelligence & Cost SMEs**
- **Goals:**
  - **Identify intelligence requirements in all phases of the acquisition process (Capabilities Development, Concept Refinement, Technology Development, System Development & Demonstration, Production & Deployment, and Operations & Support)**
  - **Determine appropriate intelligence costs**
  - **Incorporate process and methodology into all Acquisition Intelligence Sensitive Products**

ICWG Stakeholders

- **Stakeholders – Individuals and organizations that are actively involved in this project, or whose interests may be affected as a result of this project**
  - **<u>Implementing Organization</u> (AFMC)**
  - **<u>Intelligence Community</u> (DIA, AIA, AF/XOI, MAJCOM/A2s)**
  - **<u>Acquisition Community</u> (AFMC, AFCA, AF/XI, AF/XOR, AFOTEC, AFSPC, MAJCOM DR/XR, SAF/AQ, Program Offices)**
  - **<u>Cost Community</u> (DNI-CAIG, OSD-CAIG, AFCAA, MAJCOM FMs, Program Offices)**

ICWG Membership

Chairperson: Tim Edem, AFMC OAS/XRIC
Co-Chair: Cynthia Uyhelyi, AFMC OAS/XRIC

Intelligence Community: 65

Cost Community: 20

Active Members:

- **DNI-CAIG (Advisors)**
- **USAF/A2X, NASIC/FCI/XOX, AIA/A5R SAF/AQXA, AFCAA, AF/A2X/A5R, AFCA/ECF**
- **OAS HQ/XR, HQ AFMC OAS/XRI, HQ AFMC/A2X, HQ AFMC/FMPC, HQ AFMC/IGIG, AFRL/XRI, HQ ACC/A2X/FMC, HQ AFSPC/A2X/A9R/A8Y/FMAQ, HQ AETC/FM, AFSOC/A2Z, HQ AMC/FM/IN, HQ AFOTEC/XPP, HQ AFSOC/XR, HQ PACAF/FMAM, HQ USAFE/A2XR**
- **AAC/XR, WR-ALC/XRI/FMC, ESC/FMC, ASC/XRI/FMCE, AFFTC/FM/IN, ESC/FM/XRI, OC-ALC/FM, OO-ALC/FMC/XPI, SMC/IN, USAFE/A-2, AFIWC, AFRC/DO**

ICWG Assumptions

- Identify Acquisition Intelligence Costs not currently part of existing acquisition program cost estimates
- Scope: USAF direct cost items (peacetime)
  - Other National Intelligence Community (IC) costs may be added if costs are gathered and updated by their providers
- Requirement costs will include manpower (officer/enlisted/civilian/contractor), training, travel, facilities, off-the-shelf hardware/software, and hardware/software design & development.
  - Other costs added as identified

ICWG Team Status

- Identified and defined Intel Cycle requirements
- Developed Acquisition Intelligence LifeCycle Estimating Structure (AILCES) (similar to a Work Breakdown Structure [WBS])
- Mapped and numbered Intelligence products/services (as part of the AILCES)
- Assigned cost responsibility, cost factors, requirement source, frequency, regulatory references, and requirement descriptions
- Purchased/Tested Intel Enterprise Requirements Matrix Software for SIPRNET (SA-XT)
- Identified active Intelligence Applications (AFMC ISSP)
- Completed USAF policy/guidance review (Acquisition, Cost, & Intelligence)
- Created 1st AF Intelligence Support Cost Estimate (NGLRS AoA)
- Obtained access to historical unpublished intelligence cost data (AFTOC)

Acquisition Intelligence Support Cost Estimate

1. The NGLRS Intelligence Support Cost Estimate was completed on 21 September 2006 as the first AF intelligence support costing effort since the establishment of the AFMC OAS Intelligence Cost Branch in July 2004.

2. The methodology used to complete the NGLRS AoA Intelligence Support Cost Estimate was begun by mapping Intelligence requirements, as outlined in the NGLRS AoA Concept of Employment and Technical Description Documents, to the Acquisition Intelligence LifeCycle Estimating Structure (AILCES). Collaboration with AoA Study Team Working Groups as to inclusion/exclusion of specific costs was then completed. Assumptions were made based upon anticipated future National Intelligence Community manpower and production support, current intelligence deficiencies, and advances in intelligence technology for the life-cycle period. Applied costs, where available, which were collected from similar AF intelligence-sensitive programs and used as the basis for those costs. Subject matter expert opinion was used in absence of historical cost data. As extended investigation of intelligence support is accomplished and historical costs are collected and analyzed on all current AF platforms and programs, this estimate will be revised.

- **1st AF Intel Support Estimate**
  - **Acquisition Intelligence LifeCycle Estimating Structure (AILCES)**
  - **Analogous Programs/SME Opinion**
- **Impacts:**
  - **Increasing Involvement in Intelligence-Sensitive Study Efforts**
  - **Defendable Intel support cost at Program inception or as part of AoA studies**
  - **Operating Command Intelligence Office coordination on all OAS/XRIC cost efforts**
  - **Intelligence and Financial Management Community Cohesion**

Intel Enterprise Requirements Matrix (IERM) Intelligence Cost Tool

- Web-based data repository for all weapons-specific intelligence cost data with AFMC OAS/XRIC controlled access (SIPRNET)
- Imbedded cost calculation spreadsheets/discount rates/etc., planned (potential AFIT assistance)
- Unlimited data storage/users
  - Field SIOs - Customizable user entry and data input
  - AFMC OAS/XRIC – Management of Intelligence work breakdown structure, cost calculations & user access
  - AFMC/A2 – Architecture design & user access
- Customizable user reports
- Greater contextual knowledge for Program Managers, Intelligence Analysts, and Cost Analysts to facilitate Intelligence requirement insertion into POM process

ICWG Flight Plan

Milestone	Date
Begin Stakeholder Briefs & DoD-Wide Coordination (HAF/A2, AFCAA, OSD (PA&E/AT&L), NCCA, HQ MC, DIA, AIA, OHD, etc.)	Apr 07
Acquisition Intelligence strategy coordination (HAF/A2 memo to SAF/AQ & SAF/FMC)	May 07
Regulatory Change Proposals	May 07
Intelligence Database/Model Development	May 07
Intelligence Database Population	Jun 07
Gather/Analyze Historical Intel Costs	On-going
Provide Intelligence Support Cost Estimates	Ongoing
▪ FSA: IUBIP (Joint)	
▪ AoAs: PAR, PGS, MNAS	
Support Current Intelligence-Sensitive Programs	Ongoing

Summary

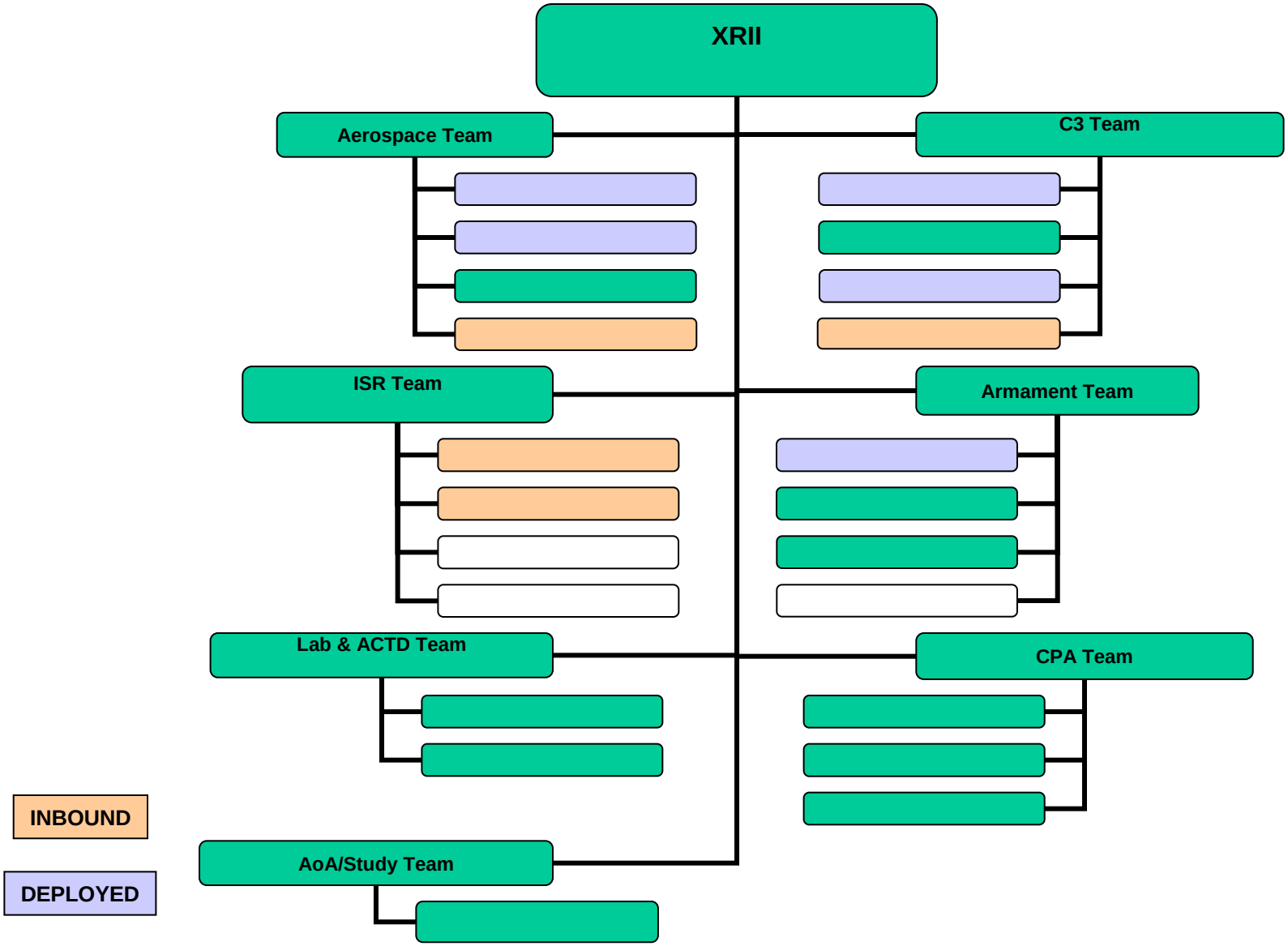
- Acquisition Intelligence Costing efforts will potentially prevent scheduling delays, costly work-arounds, and unplanned adjustments to Operations and Maintenance due to intelligence oversight
- Intelligence cost modeling tool will:
  - Enable the capture of Intelligence cost data across all AF acquisition programs
  - Provide the necessary structure to obtain a validated intelligence cost estimate in all acquisition phases from capabilities development to final disposal
- Continued involvement in AF Capabilities Development study efforts will ensure intelligence requirements are included in the planning process

Questions?

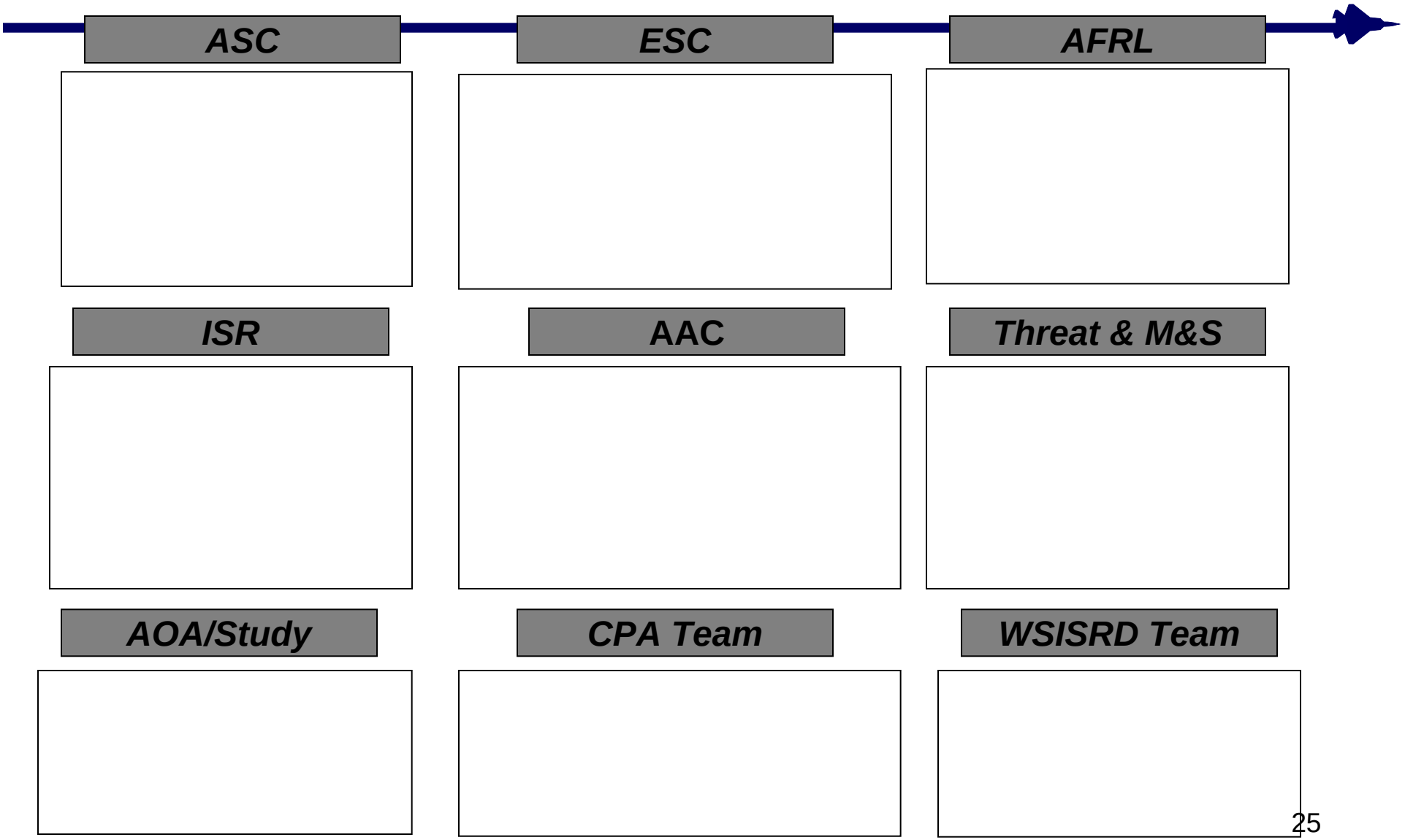
LEADING EDGE TECHNOLOGY
WAR-WINNING SYSTEMS
WORLD CLASS SUSTAINMENT

BACKUP SLIDES

OAS Intel Division
Intel Integration Branch



Integration Structure



Integration's Primary Tasks

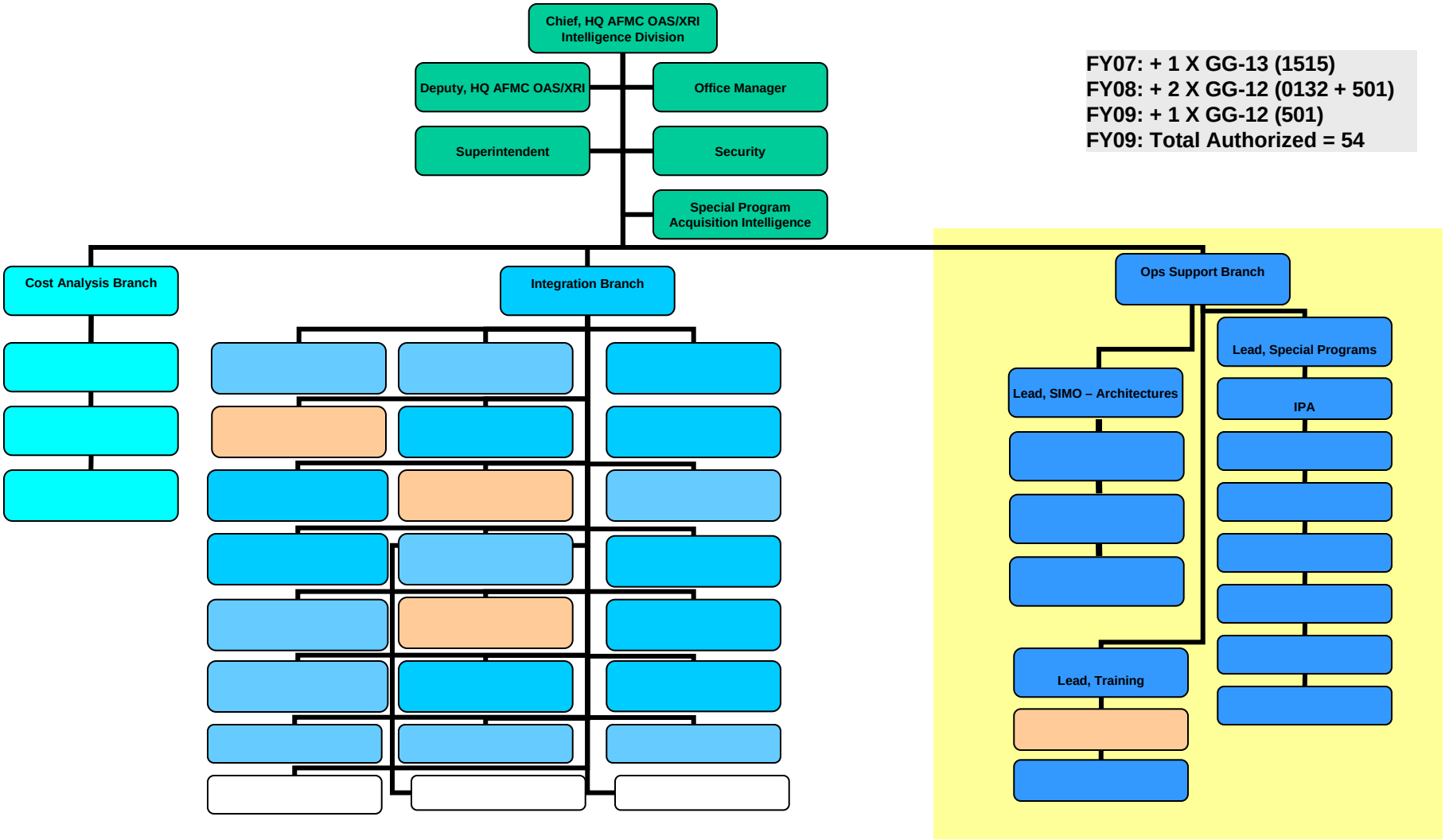
- **Study support**
  - Analysis of Alternatives, Functional Solution Analyses
  - Currently: NGLRS, CRT-X, Homeland Defense, FP, AJACS, MNAS, 3D Radar, AFOne,
- **Intelligence Requirements**
  - All requirements
    - Infrastructure/Acquisition: WSISRD (Weapons System Intel Support Requirements Database)
    - Production Requirements: COLISEUM (Community On-Line Intel System for End-Users & Managers)
  - Validation authority for AFMC
  - Advocate for requirements
- **Cross Program analysis**
  - Analyze requirements Intel Infrastructure Analysis and COLISEUM
  - Find similarities; build a stronger case; add efficiency; save govt dollars
  - Full-spectrum of the acquisition timeline (study and lab efforts through sustainment)
- **Leverage joint programs for improved IC support**
  - Key intel participant in JSF, F-22, SDB I & II, ASIP, GH
  - Working on DCGS, AOC-WS, JSTARS, JMPS, & others
- **Intelligence Certification per CJCSI 3170 & 3312**
  - Intelligence Health Assessments (IHAs)

Mission accomplished through membership in Acq-Intel, traditional intel forums, studies, coordination between SIOs, AFMC/A2, Operating Commands, and the IC

OAS/XRI Cross Program Analysis Efforts

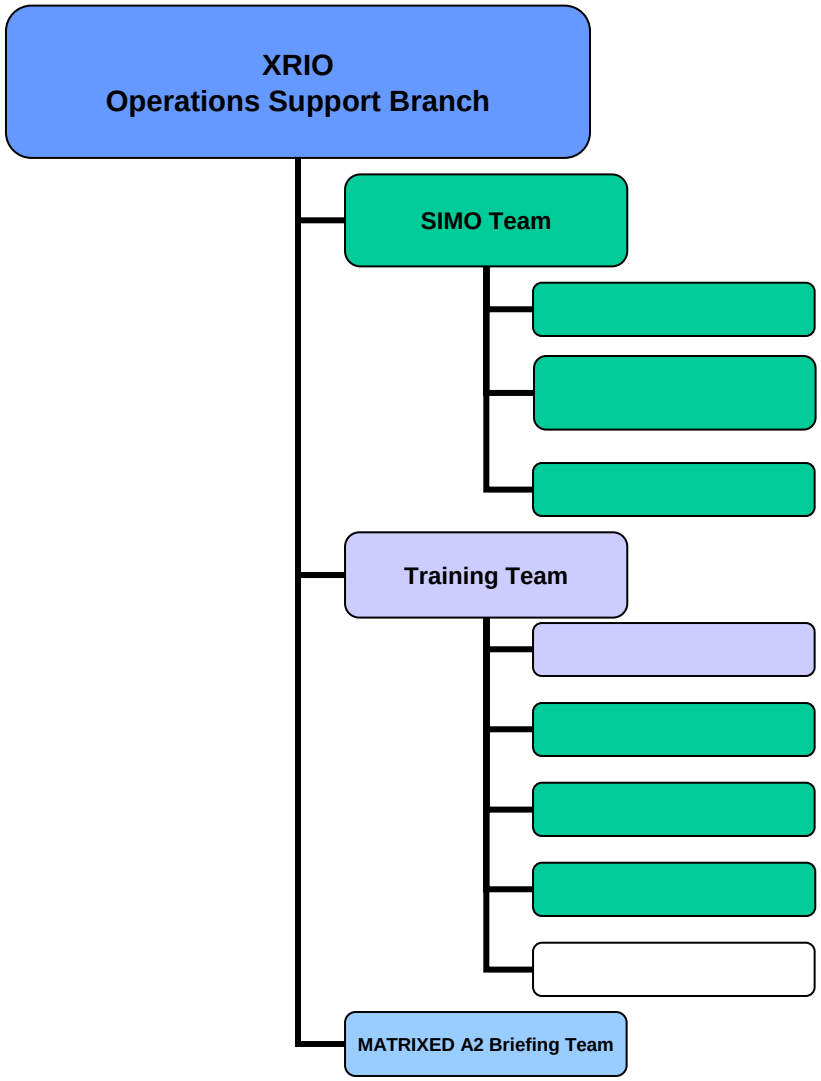
- **Threat Modeling & Simulation**
  - Quantify the total threat model requirement and develop a comprehensive roadmap for required IC products by threat and by customer, to include the identification of shortfalls and resource constraints.
  - AFMC Programs: F-22, F-35, NGLRS, AF-ICE, DMO, ASC/ENMM Analysis of Alternatives, Functional Solution Analyses
- **Non-Traditional ISR**
  - Qualify the types of information available for processing from the weapon systems, the plan for dissemination of the products and an analysis of the issues associated with this information and the stresses placed on the Intel/Comms infrastructure to process, exploit and disseminate this information.
  - AFMC Programs: F-22, F-35, F-15, DCGS, AOC, AWACS, CSA/ASAN, NGLRS
- **Next Generation Reprogramming**
  - Define the common Intel data required to support the reprogramming activities accomplished at the 53 EWG for the F-22 and F-35.
- **Target Location Error/Accuracy**
  - Document the benefits of improved NGA products' vertical and horizontal accuracy on weapon systems effectiveness.
  - AFMC Programs: All Coordinate Seeking Weapons (CSWs) and their platforms.
- **Small Diameter Bomb I & II Impact on Intel Infrastructure/Support**
  - Addresses the Intel support requirements to employ these munitions at all phases of the targeting cycle.
  - AFMC Programs: F-22, F-35, B-2, B-1, F-15
- **Threat and Target Signatures Requirements**
  - Addresses the multi-spectral signature requirements for all AFMC acquisition programs employing Combat ID (CID) and Auto Target Recognition (ATR) technology.
  - AFMC Programs: AFRL Projects, F-22, F-35, JSTARS, AWACS, F-15, SDB, C2, ISR
- **OSD PA&E Scenarios issue in support of AF Acquisition Programs**
  - Addresses the lack of a comprehensive, current, & credible threat representation in OSD level scenarios.
- **Joint Mission Planning (JMPS)**
  - Document the Intel infrastructure required to support the plethora of mission planning systems employed across the AF
  - AFMC Programs: All aircraft programs, precision guided munitions, AOC-WS, DCGS, ISR programs
- **Advanced Situational Awareness and Networking**
  - Address the many different projects in development that provide tactical battlefield information fusion & common SA.

Ops Support Branch



FY07: + 1 X GG-13 (1515)
FY08: + 2 X GG-12 (0132 + 501)
FY09: + 1 X GG-12 (501)
FY09: Total Authorized = 54

OAS Intel Division
XRIO Roles & Responsibilities

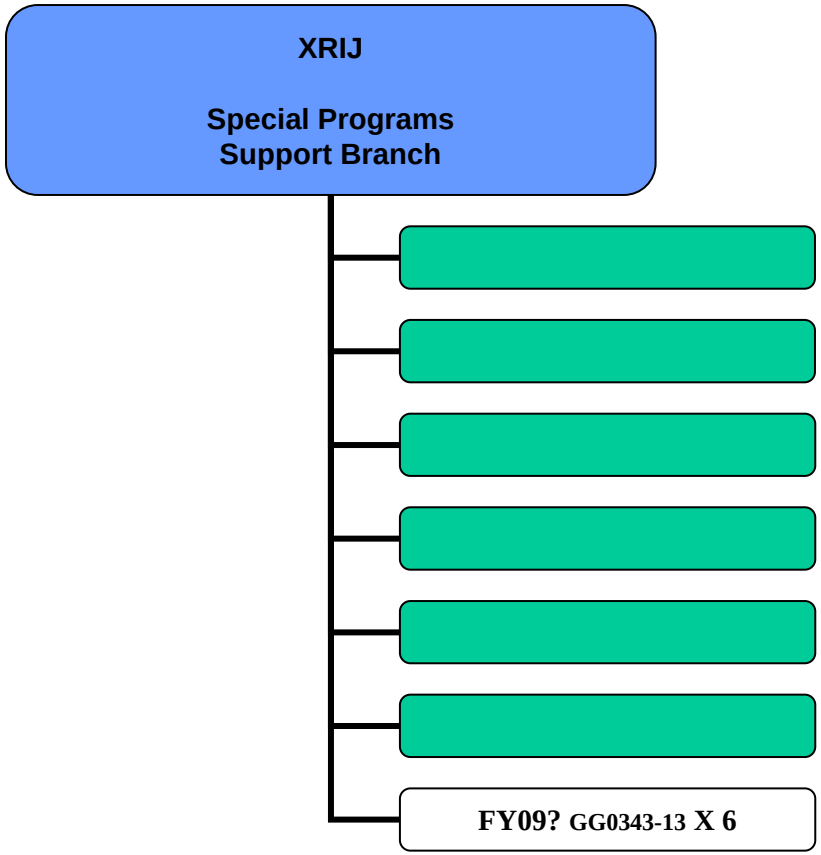


- **Intel Systems Mgt & Support**
  - **System Integration Management Officer**
- **Command-wide Acquisition Intel Training**
- **Command-wide Force Protection Support**
  - **Intel Force Protection Website:**
    - https://afkm.wpafb.af.mil/ASPs/CoP/EntryCoP.asp?=OO-IN-AS-02
- **Command-wide S&T Intel Analysis**

Primary Tasks
Operations Support Branch

- **Systems Integration Management (SIMO)**
  - **Standardized Intel-related IT solutions Command-wide**
    - **M3, OSIS requirements, SCI DMS, FSD…**
  - **Work Group Mgmt**
    - **3 networks (SCI, collateral, unclassified)**
    - **Web Development (OAS/XRI and HQ AFMC/XRI) – Future Capability**
- **Training**
  - **External Training**
    - **Acquisition Intelligence IFTU, Internal Training Template for fielded units**
  - **Internal training**
    - **IQT/MQT**
    - **Core Tasks for Acquisitions Intel and 14N/1N0 Career Personnel**
- **Force Protection (FP)**
  - **Travel/Deployment (Pre-deployment) Support**
    - **One-Stop-Shop AT/FP SIPRNet Webpage**

OAS Intel Division
XRIJ Roles & Responsibilities

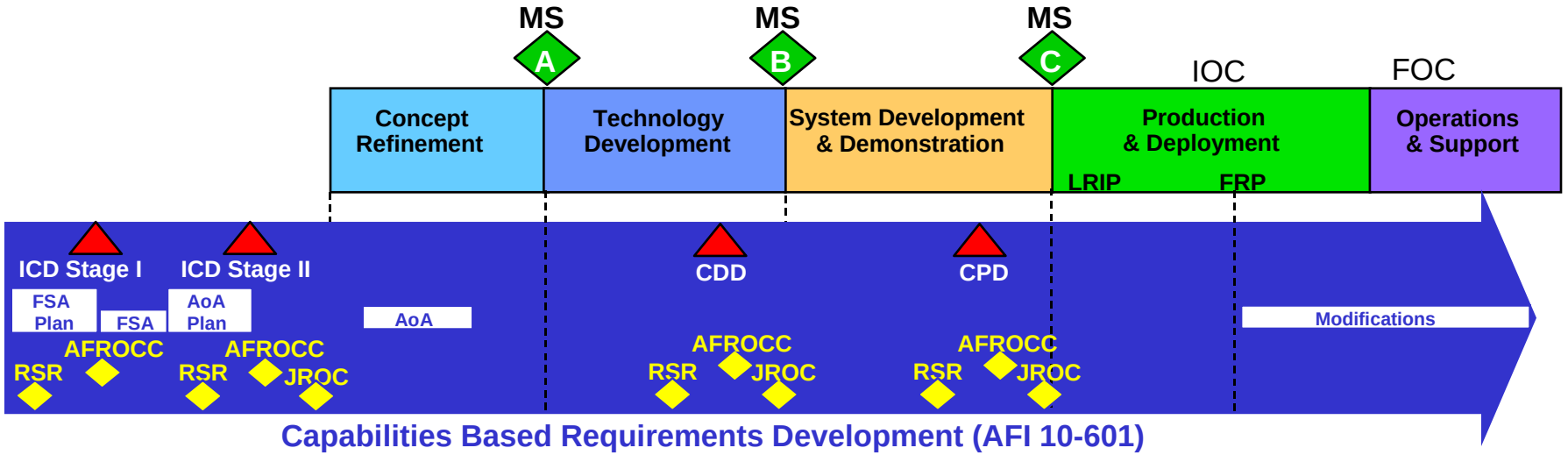


- **USAF-Wide Special Programs Analysis and Planning**
- **Direct Support to OSD, Air Staff and MAJCOMS**
- **Heavily Leverages Acquisition Intel Activities**

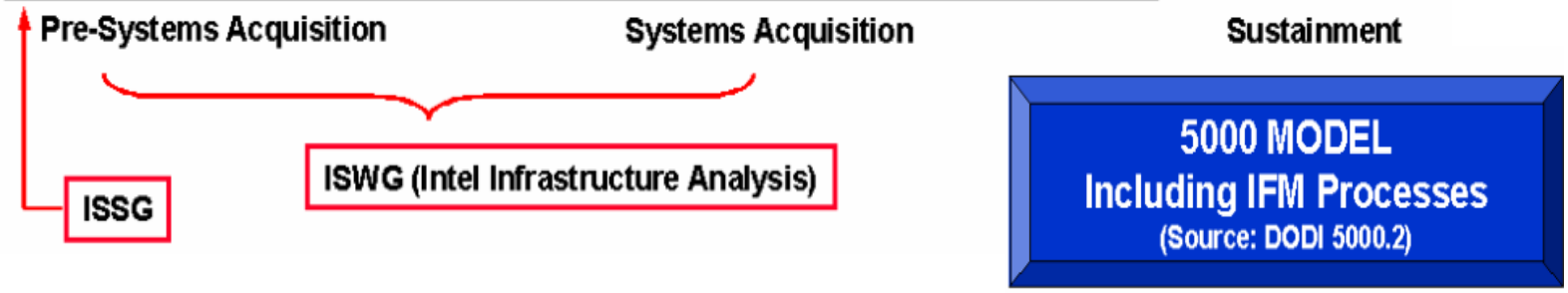
Defense Intelligence Cycle

Defense Acquisition Management Framework

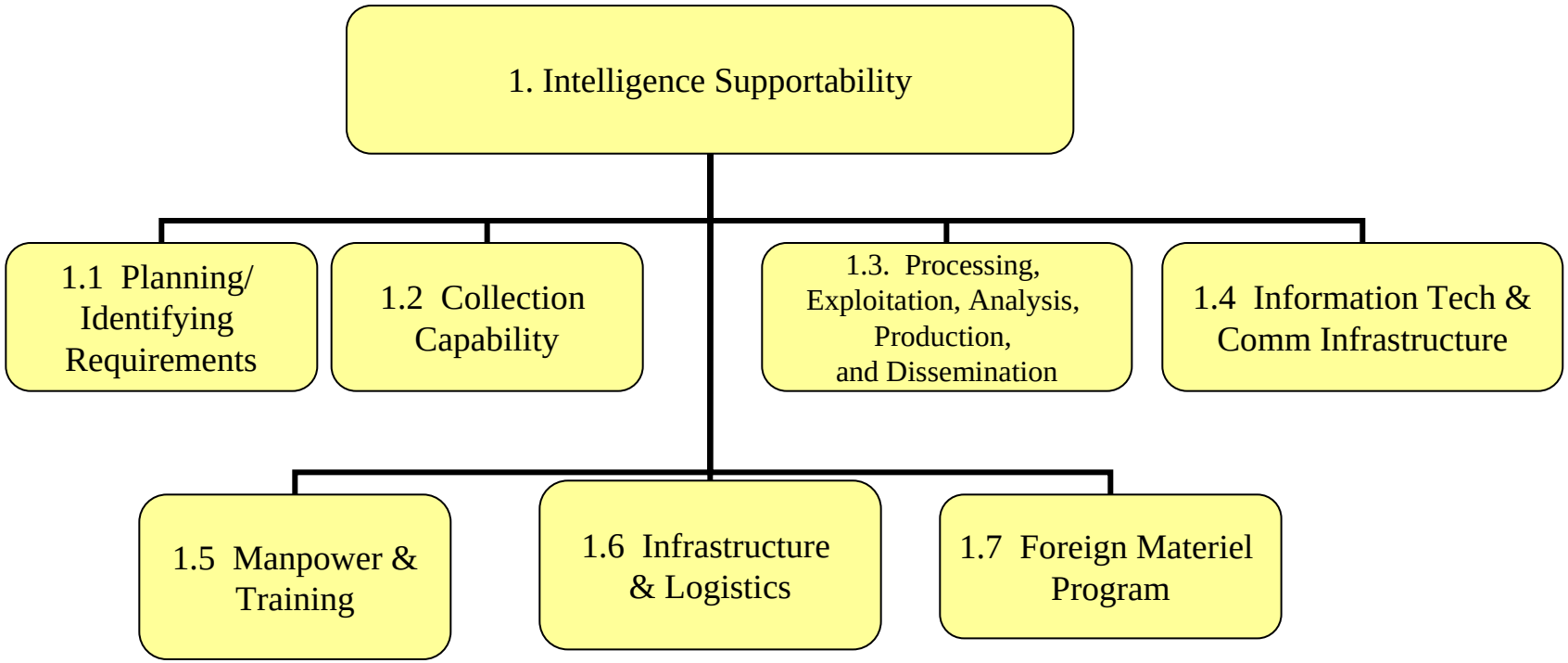
The Acquisition Lifecycle



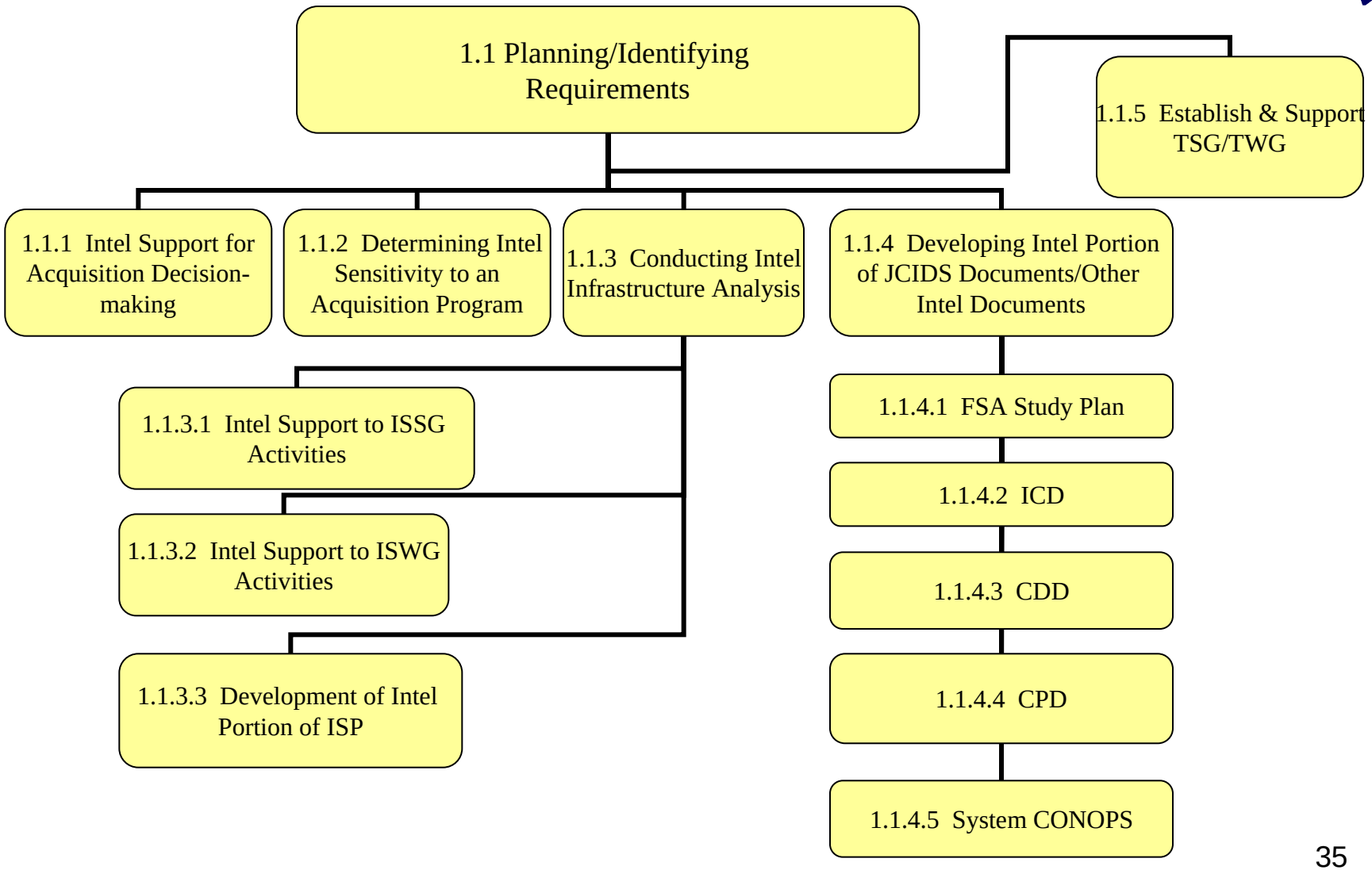
Capabilities Based Requirements Development (AFI 10-601)



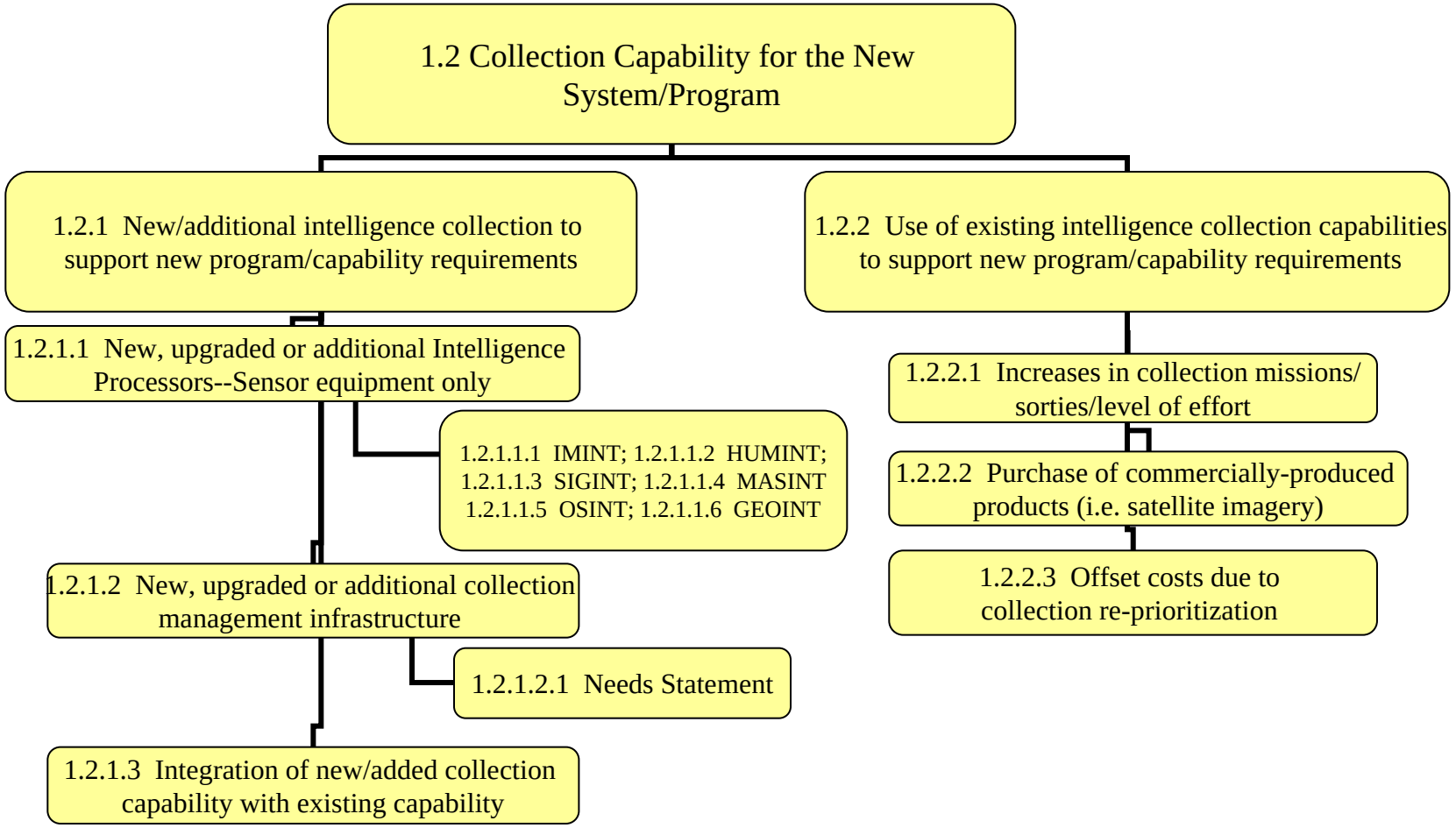
Acquisition Intelligence LifeCycle Estimating Structure



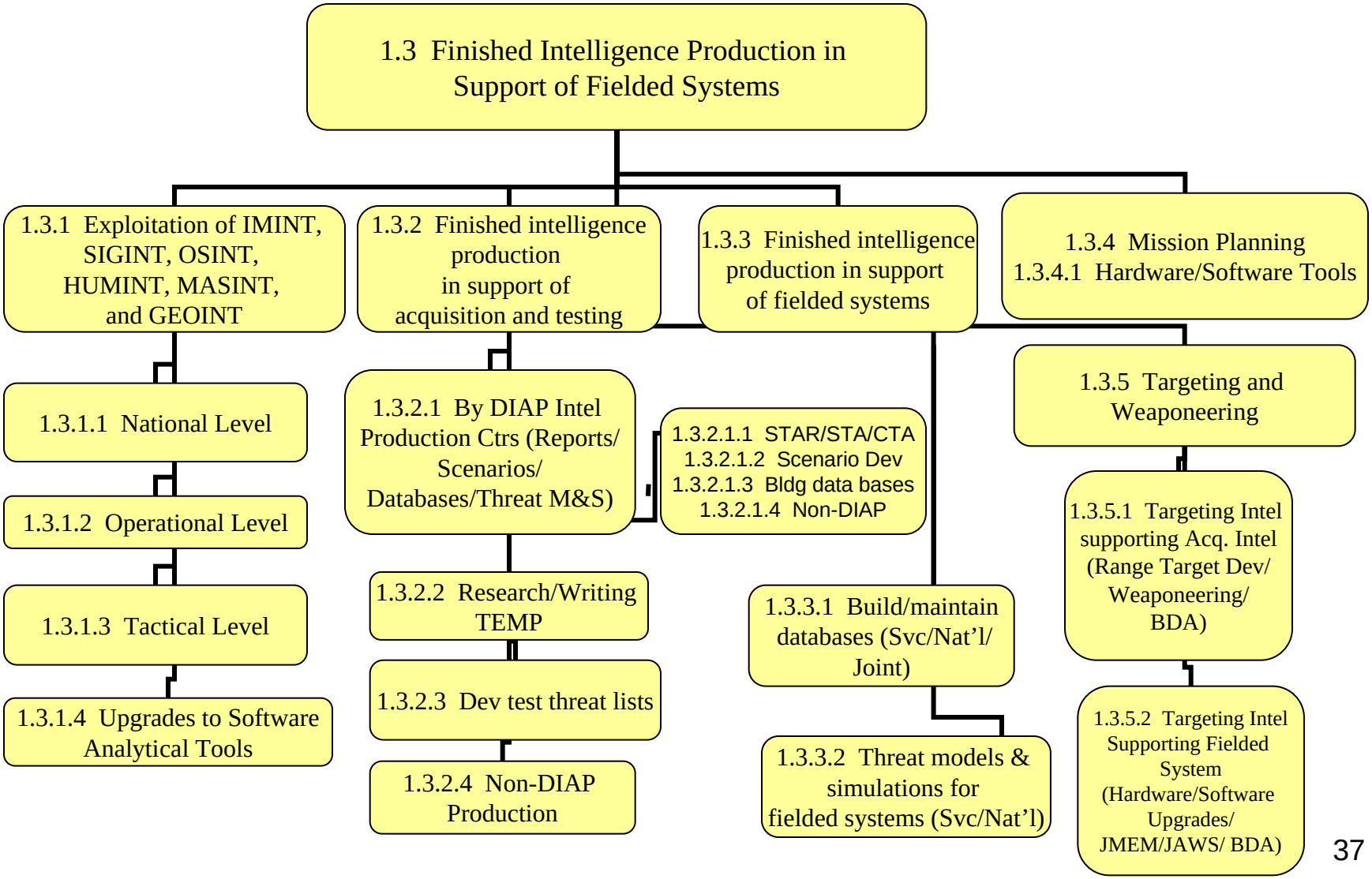
Acquisition Intelligence LifeCycle Estimating Structure



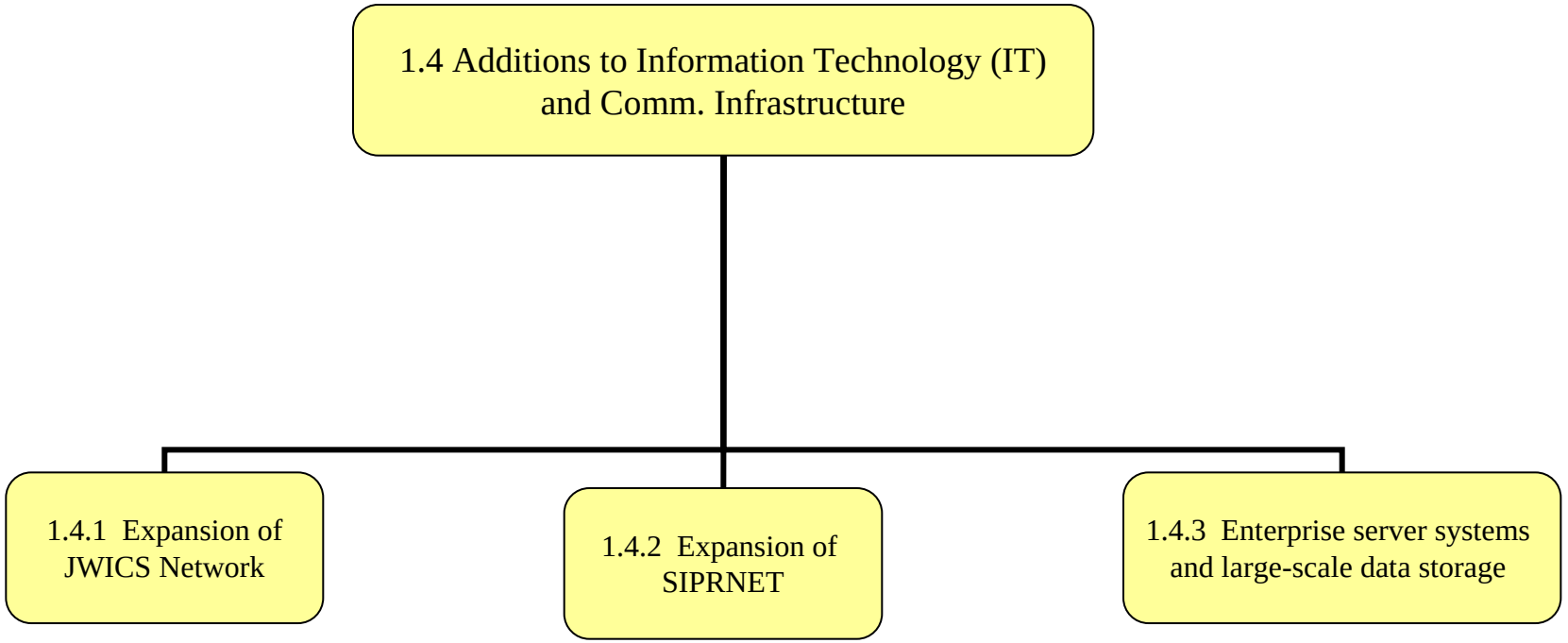
Acquisition Intelligence LifeCycle Estimating Structure



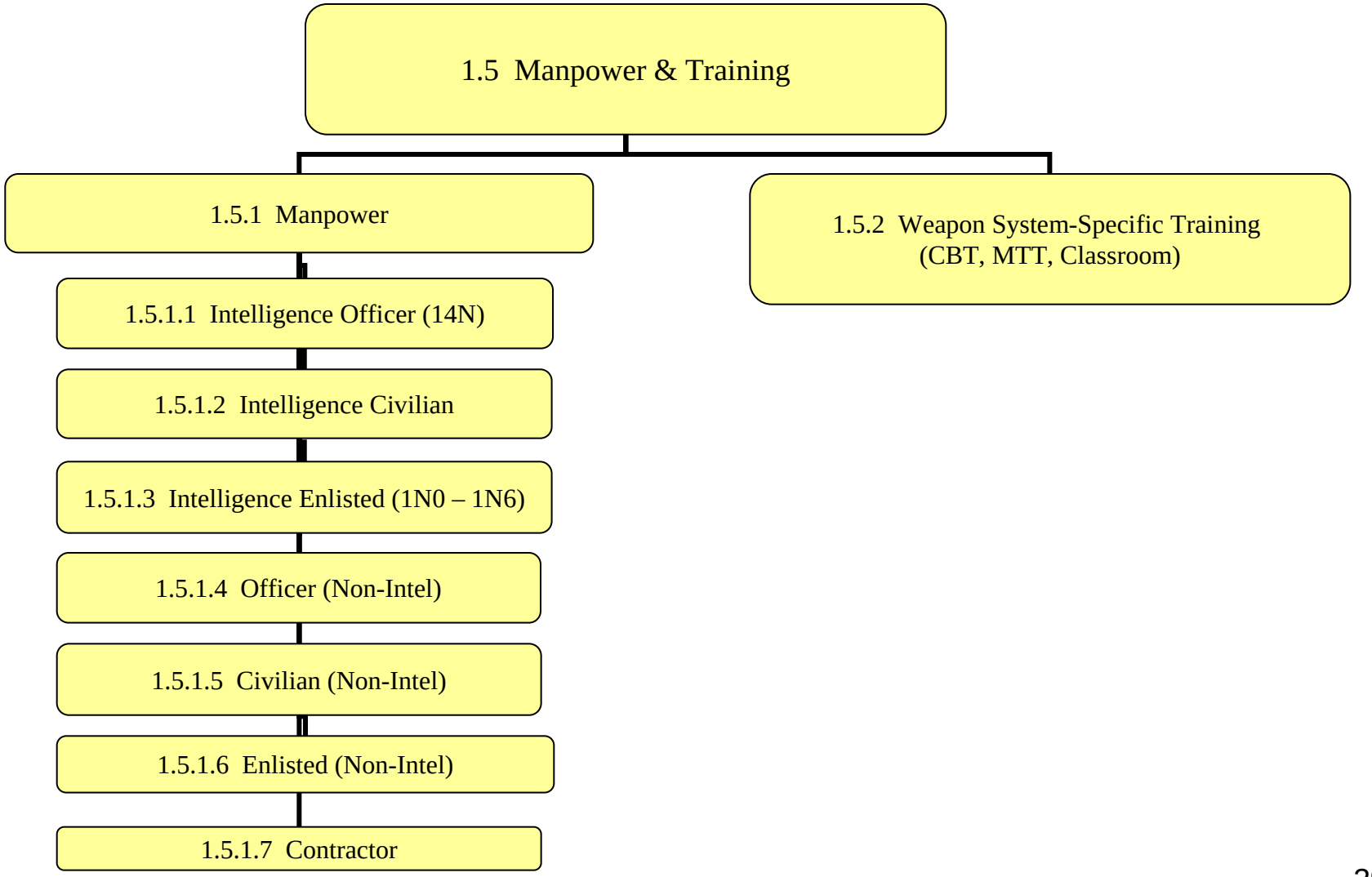
Acquisition Intelligence LifeCycle Estimating Structure



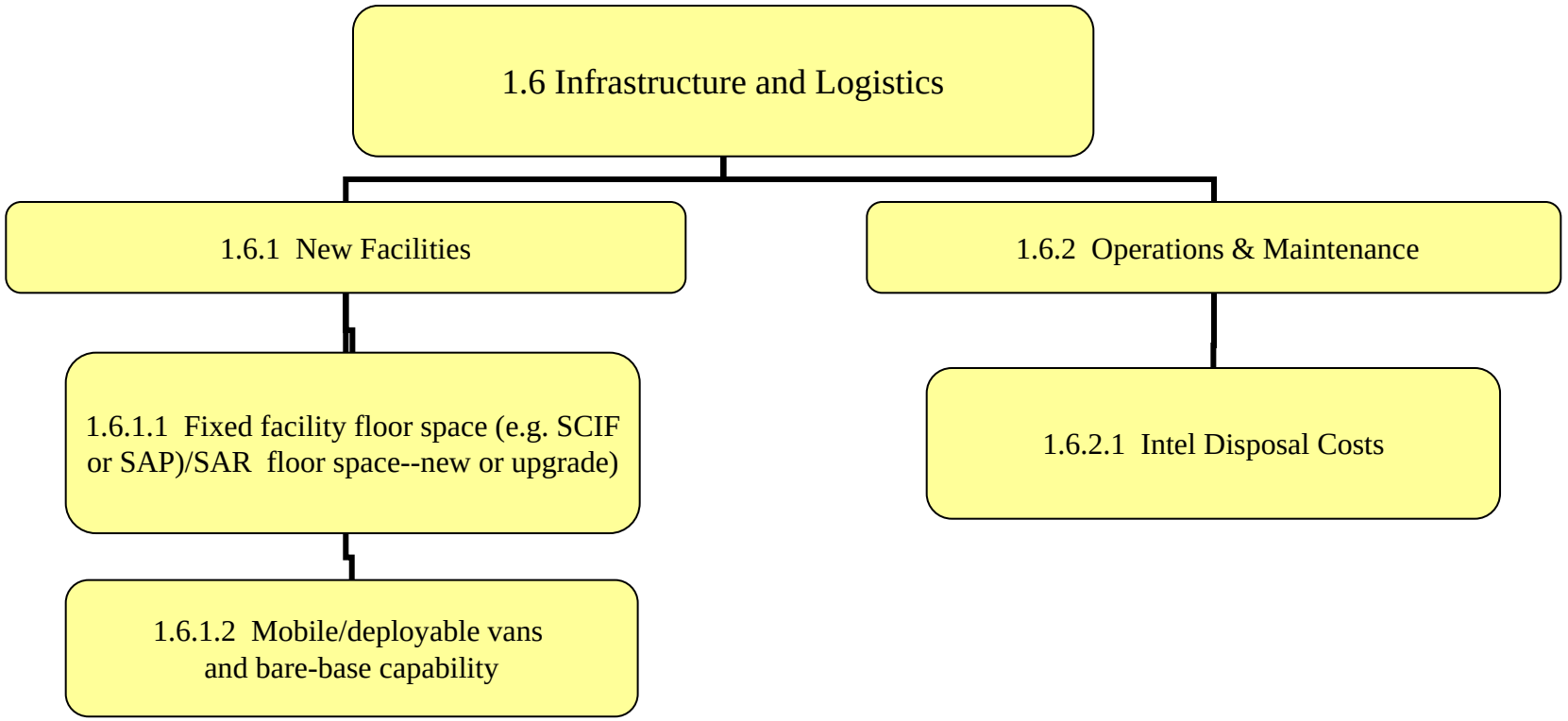
Acquisition Intelligence LifeCycle Estimating Structure



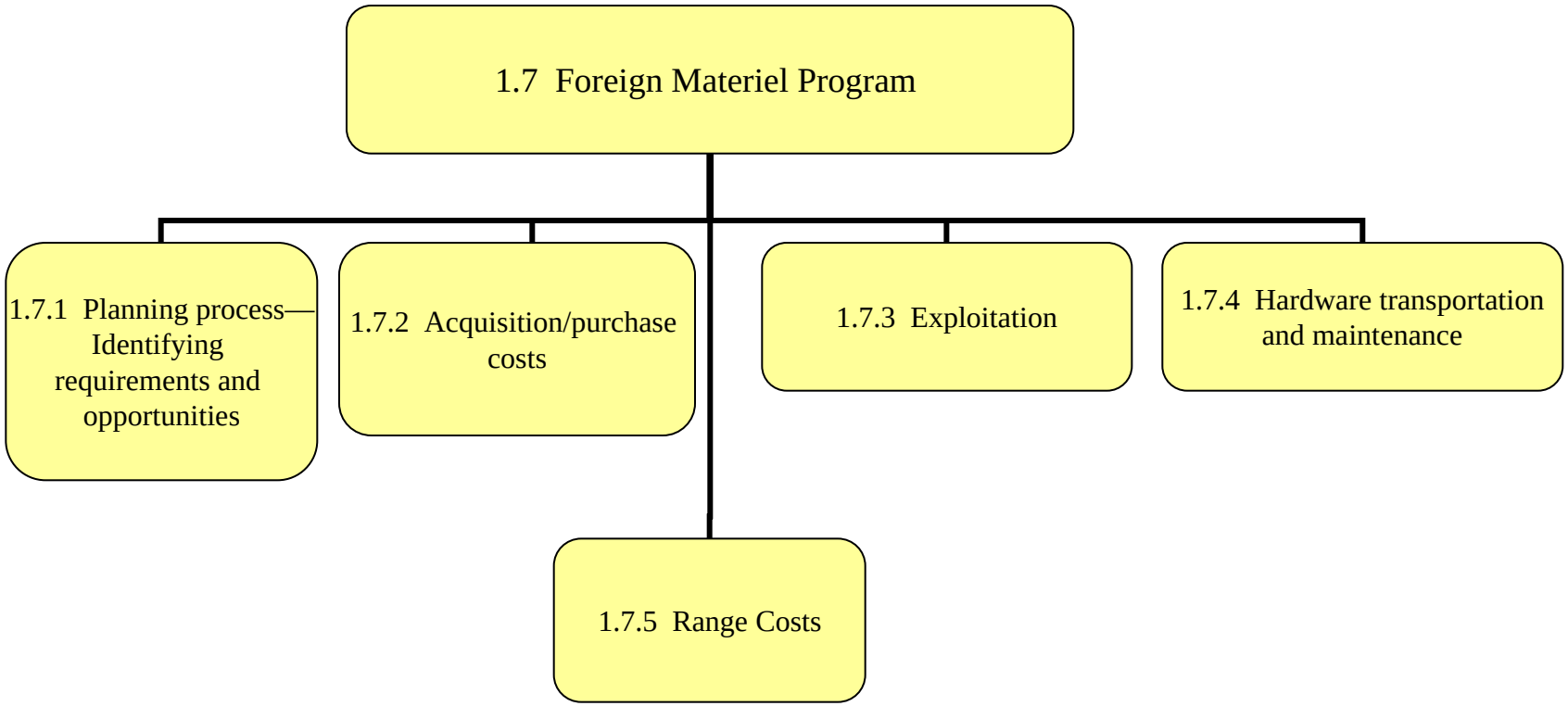
Acquisition Intelligence LifeCycle Estimating Structure



Acquisition Intelligence LifeCycle Estimating Structure



Acquisition Intelligence LifeCycle Estimating Structure



Acquisition Intelligence LifeCycle Estimating Structure (AILCES)
1. Intelligence Supportability
1. 1 Planning and Identifying Requirements
1.1.1 Intelligence support to acquisition decision-making
1.1.2 Determining intelligence sensitivity of an acquisition program
1.1.3 Conducting Intelligence Infrastructure Analysis
1.1.3.1. Intelligence Support Steering Group (ISSG) activities
1.1.3.2. Intelligence Support Working Group (ISWG) activities
1.1.3.3. Development of intelligence portion of Information Support Plan
1.1.4 Developing Intel portions of JCIDS documents and other program documents
1.1.4.1. Functional Solutions Analysis Study Plan
1.1.4.2. Initial Capabilities Document (ICD)
1.1.4.3. Capability Development Document (CDD)
1.1.4.4. Capability Production Document (CPD)
1.1.4.5. System CONOPS
1.1.5. Establish and support Threat Steering Group (TSG) and Threat Working Group (TWG)
1.2. Collection capability for the new system/program
1.2.1. New/additional intelligence collection to support new program/capability requirements
1.2.1.1 New, upgraded or additional Intelligence Processors--Sensor equipment only
1.2.1.1.1 IMINT
1.2.1.1.2 HUMINT
1.2.1.1.3 SIGINT (includes ELINT, COMINT, FISINT)
1.2.1.1.4 MASINT
1.2.1.1.5 OSINT (Open Source)
1.2.1.1.6 GEOINT
1.2.1.2 New, upgraded or additional collection management infrastructure
1.2.1.2.1 Development of new Intel collection requirements (Needs Statement)
1.2.1.3 Integration of new/added collection capability with existing capability
1.2.2 Use of existing intelligence collection capabilities to support new program/capability requirements
1.2.2.1 Increases in collection missions/sorties/level of effort
1.2.2.2 Purchase of commercially-produced products (i.e. satellite imagery)
2.2.3 Offset costs due to collection re-prioritization (who loses out, and what are they going to do?)
1.3. Added requirements for Processing, Exploitation, Analysis, Production, and Dissemination
1.3.1. Exploitation of IMINT, SIGINT, OSINT, HUMINT, MASINT, and GEOINT
1.3.1.1. National-level Exploitation
1.3.1.2 Operational Level Exploitation
1.3.1.3 Tactical Level Exploitation